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Run on:
                                                                                                            OM protein - protein search, using sw model
January 30, 2002, 11:48:26; Search time 27.34 Seconds (without alignments) 36.221 Million cell updates/sec
                                                                                                                                                                                          GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
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Title: Perfect score: Sequence: US-09-432-546-4 99 1 RRWPWWPWKWPLI 13

Scoring table: Gapop 10.0 , Gapext 0.5 BLOSUM62

219241 seqs, 76174552 residues

Total number of hits satisfying chosen parameters: 219241

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR\_68:\*

Database :

pir1:\*
pir2:\*
pir3:\*
pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	œ	7	თ	σ	4	ω	N	ь	Result No.
48	8	48.5	49	49	49	49.5	49.5	49.5	50	50.5	50.5	50.5	50.5	51	Ē	51.5	51.5	51.5	51.5	52	52	52.5	52.5	53	55	56	57	62	Score
			49.5							51.0		•	•		52.0	•	52.0	•	52.0	•	•	•	•	•	•	•	٠		Query Match
314	228	212	669	456	169	497	257	253	83	560	279	279	279	1173	2970	498	321	209	196	1112	301	1231	970	95	236	236	1662	144	Length
N	2	N	N	Ц	N	Н	N	2	N	N	N	N	N	_	N	1	N	N	Ν	N	N	2	N	N	N	2	2	1	BE
н84677	S40463	S57330	T28028	140516	F72532	A40487	S70177	G70715	в72392	T32661	T50889	E49964	S68239	VGIHHC	T08839	JT0751	F84611	A48232	B48232	S70522	G83556	C84716	C84488	E86447	JQ0606	F83705	T18540	JC1222	Ħ
cal prot	prophenin (PF-2) p	$\overline{}$	thetical prot		hypothetical prote	ferredoxinNADP+	yfrE protein - Yer	thetical		hypothetical prote	photosynthetic rea	photosynthetic rea	photosynthetic rea	E2 glycoprotein pr	polyprotein - marm	ferredoxinNADP+	hypothetical prote	cysteine-rich exte	cysteine-rich exte	cyclic nucleotide	hypothetical prote		hypothetical prote	4.5 [	_		mofA protein precu	n prec	Description

mofA protein precursor [imported] - Leptothrix discophora C;Species: Leptothrix discophora C;Species: Leptothrix discophora C;Date: 02-Sep-2000 #sequence\_revision 02-Sep-2000 #text\_change 08-Sep-2000 C;Accession: T18540 R;Corstjens, P.L. submitted to the EMBL Data Library, April 1999 A;Reference number: Z18959

RESULT T18540

문 QY

2 RWPWWPWK 9 :||||: 135 KWPWWPWR 142

Query Match
Best Local Similarity 75.0
Matches 6; Conservative

62.6%;

Score 62; DB 1; Length 144; Pred. No. 0.24; 2; Mismatches 0; Indels

0; Gaps

0;

7 8 8 8 8 8 4 4 4 4 4 4 4 4 4 4 4 4 4 4	30
47 - 50 47 - 50 47 - 5 - 5 47 - 47 47 - 47 47 - 47 47 - 47	4.4.4 00 00 00
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752 752 752 73 212 233 223 253 253 2964 966 982 982 1055	947 990 1172
01111000000000	2 1 2
T29295 E823449 E82146 D75497 P00518 B96652 D86310 T12505 VCLJC6 VCLJC6 VCLJCC VCLJC VCLJC VCLJC VCLJCC VCLJC	H85088 G46335
hypothetical prote NADH oxidase (H2O2 Rec2-related prote hypothetical prote hypothetical protein - protein F123N19.5 [ protein F113.4 [im hypothetical prote env polyprotein pr env polyprotein pr env polyprotein pr env polyprotein pr protein F1E22.12 [	hypothetical prote env polyprotein pr protein F9C16.13 (

## ALIGNMENTS

indolicidin precursor - bovine  Nalternate names: antimicrobial peptide C;Species: Bos primigenius taurus (cattle) C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999 C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999 C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999 C;Cate: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999 R;Cate: 10-Sep-1999 #text_change 10-Sep-1999 A;Cate: 10-Sep-1999 A;Ca	POTT II 1
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A;Cross-references: GB:D12484; GB:D01134; NID:g216856; PIDN:BAA02052.1; PID:d1002534; A;Note: part of this sequence, including the amino end of the mature protein, was conformation carboxylic ester hydrolase F;2-236/Product: arylesterase #status predicted <MAT>
                                                                                                                                                                                                                                                         R;Choi, K.D.; Jeohn, G.H.; Rhee, J.S.; Yoo, O.J. Agric. Biol. Chem. 54, 2039-2045, 1990
A;Title: Cloning and nucleotide sequence of an esterase A;Reference number: JQ0506; MUID:91182405
A;Accession: JQ0506
    QΥ
                                                                                                                                                                                                                                                                                                                                                                        arylesterase (EC 3.1.1.2) precursor - Pseudomonas fluorescens
C;Species: Pseudomonas fluorescens
C;Date: 31-Mar-1992 #sequence_revision 31-Mar-1992 #text_chan
                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-236 <CHO>
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A;Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans and A;Reference number. A83550; MUID:20263314
A;Accession: F83705
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A; Residues: 1-236 <STO>
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A; Residues: 1-1662 <COR>
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A;Status: preliminary; translated from GB/EMBL/DDBJ
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                                            Query Match
Best Local Similarity
Matches 8; Conserv
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Best Local
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/Species: Bacillus halodurans
pate: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 31-Dec-2000
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                                            Conservative
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                                                          55.6%;
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77.8%;
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Pred.
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Pred. No. 11;
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                                          Mismatches
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2.8;
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                                                                              Length 236;
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C;Genetics:
A;Gene: F5D14.5
A;Map position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; Vanaken, S.E.; Umayam, L.; Tallon, euss, D.; Nierman, W.C.; White, O.; Elsen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter Nature 402, 761-768, 1999
                                                                                                                                                                                                                   A; Map position:
                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-970 <STO>
                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A84420; A; Accession: C84488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypothetical protein At2907730 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 02-Feb-2001 C;Accession: C84488
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                                                                                                                                                                                                                                                                                                                                                                                                                              A; Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khay C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Mait Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W.
A;Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-95 <STO>
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A;Accession: E86447
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Nature 408, 816-820, 2000
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C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 31-Mar-2001
C;Accession: E86447
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46.7%;
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29.6%;
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Pred. No.
                                                                                                                  Score 52.5;
Pred. No. 22;
                                                                                           Mismatches
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Maiti, R.;
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hypothetical protein At2g31080 [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change (C;Accession: C84716
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A;Accession: C84716
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Bradman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
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A; Residues: 1-1231 <STO>
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                                          FEBS Lett. 390, 29-33, 1996
A;Title: Differential expression of cGMP-inhibited cyclic nucleotide phosphodiesterases
A;Reference number: S70522; MUID:96314543
A;Accession: S70522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic pathoa; Reference number: A82950; MUID:20437337
A;Accession: G83556
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                hypothetical protein PA0702 [imported] - Pseudomonas aeruginosa (strain PAO1)
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                                                                                                                                                                                                           cyclic nucleotide phosphodiesterase, cGMP-inhibited (EC 3.1.4.-) - human C;Species: Homo sapiens (man) C;Date: 15-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 19-May-2000
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A; Residues: 1-301 <STO>
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A;Status: preliminary A;Molecule type: mRNA
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                            preliminary; nucleic acid sequence not shown; translation not shown
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46.7%;
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70.0%;
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Pred.
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A;Residues: 1-1112 <MUR>
A;Residues: 1-1112 <MUR>
A;Cross-references: EMBL:U38178; NID:g1145301; PIDN:AAC50724.1; PID:g1145302
A;Cross-references: EMBL:U38178; NID:g1145301; PIDN:AAC50724.1; PID:g1145302
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, January 1996
C;Superfamily: cyclic-nucleotide phosphodiesterase, cGMP-inhibited; 3',5'-cyclic-nucl
C;Keywords: phosphoric diester hydrolase
E;736-1006/Domain: 3',5'-cyclic-nucleotide phosphodiesterase homology <CNP>
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C;Date: 26-May-1994 #sequence_revision 26-May-1994 #text_change 01-Dec-2000
C;Accession: B48232; PQ0474; S24616
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A;Accession: PQ0474
A;Accession: PQ0474
A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 'MAG','1-105 <GOL>
A;Cross-references: EMBL:Z14014
A;Experimental source: stigma, style; strain Petit Havana SR1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cysteine-rich extensin-like protein 2 precursor - common tobacco
                                                                                                                                                                                                                                                        cysteine-rich extensin-like protein 1 precursor - common tobacco C;Species: Nicotiana tabacum (common tobacco) C;Date: 26-May-1994 #sequence_revision 26-May-1994 #text_change 01-Dec-2000 C;Accession: A48232; PQ0475; S24617
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Keywords: cell wall; extracellular matrix; fertilization F;1-19/Domain: signal sequence #status predicted <SIG>F;20-196/Product: cysteine-rich extensin-like protein 2 #status experimental <MAT>
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A;Molecule type: mRNA
A;Residues: 1-209 <MUA>
A;Cross-references: GB:L13439; NID:g310922; PIDN:AAA34059.1; PID:g310923
                                                                                                                A; Title: A tobacco gene family for flower cell wall proteins with a proline-rich doma A; Reference number: A48232; MUID: 93342083 A; Accession: A48232
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                                                                                                                                                                                                 H.; Zou, J.; May, B.; Gu, Q.; Cheung, A.Y
Natl. Acad. Sci. U.S.A. 90, 6829-6833, 199
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7; Conserv
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62.5%;
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Pred. No.
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Pred. No. 6.
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ferredoxin-NADP+ reductase (EC 1.18.1.2), long form precursor - bovine N;Alternate names; adrenodoxin reductase C;Species: Bos primigenius taurus (cattle) C;Date: 14-Jul-1904 #sequence_revision 18-Oct-1996 #text_change 16-Jun-2000 C;Accession: JT0751; JT0079; JS0399; S03558; PS0003; A29604; S52100 B;Takata, Y.; Sagara, Y.; Kono, A.; Sekimizu, K.; Horiuchi, T. Bull. 16, 1200-1206, 1993
                       A; Experimental source: adrenal A; Note: the authors translated
                                                                                                  A; Molecule type: DNA
A; Residues: 1-498 < TAK>
                                                                                                                                                       A;Title: Gene structure of bovine adrenodoxin reductase A;Reference number: JT0751; MUID:94177140 A;Accession: JT0751
                                                                  A;Cross-references: GB:D83475; NID:g1199916; PIDN:BAA11921.1; PID:g4521308
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A; Residues: 1-321 <STO>
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A; Accession: F84411
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C; Superfamily: glutelin
C; Keywords: cell wall; extracellular matrix; fertilization; glycoprotein
F; 1-19/Domain: signal sequence #status predicted <SIG>
F; 20-209/Product: cysteine-rich extensin-like protein 1 #status experimental <MAT>
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Plant Cell 4, 1041-1051, 1992
A;Title: Developmental expression of tobacco pistil-specific genes encoding novel extens A;Reference number: PQ0474; MUID:93005740
A;Accession: PQ0475
A;Molecule type: mRNA
A;Residues: 39-209 <GGL>
A;Residues: 39-209 <GGL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     position:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90 WPTVFVMAVWWGWKW 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
ues 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       45 WPWEIPCYLTWPFPWP 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity 43.88; ses 7; Conservation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 WP-----WWPWKW 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  At2g22350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3 WPW-----WPWKWP 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                    translated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       52.0%;
46.7%;
cortex the codon GTC for residue 205 as {
m Gly}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 51.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 51.5;
Pred. No. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
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                                                          γ
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Local Similarity hes 7; Conserv

Conservative

0 Pred. Score 51.5; Mismatches No.

Ψ

1;

Gaps

<u>,,</u>

52.0%; 63.6%;

DB

Length 498; Indels

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A,Description: catalyzes the reversible reduction of NADP+ by reduced ferredoxin or r (;Superfamily: human ferredoxin-NADP+ reductase C;Keywords: alternative splicing; flavoprotein; mitochondrion; monomer; NADP; oxidore r;1-32/Domain: transit peptide (mitochondrion) *status predicted <SIG> r;3-498/Product: ferredoxin-NADP+ reductase; long form *status predicted <MAT> r;33-204,211-498/Product: ferredoxin-NADP+ reductase, short form *status experimenta r;40-70/Region: NADP binding *status predicted f;180-190/Region: NADP binding *status predicted f;180-190/Region: NADP binding *status predicted f;281/Binding site: substrate (Lys) *status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Note: 405-Ser was also found
A; Note: 405-Ser was also found
A; Hanamoto, I; Kurokohchi, K; Tanaka, S;; Ichikawa, Y.
Biochim. Biophys. Acta 953, 207-213, 1988
A; Title: Adrenoferredoxin-binding peptide of NADPH-adrenoferredoxin reductase.
A; Reference number: PS0003; MUID: 88184054
A; Reference number: PS0003; MUID: 88184054
A; Recession: PS0003
A; Molecule type: Protein
A; Residues: 33-41, 's', 43-62; 260-283, 'TM'; 496-498 < HAM>
A; Residues: 33-41, 's', 43-62; 260-283, 'TM'; 496-498 < HAM>
A; Residues: 33-41, 's', 43-62; 260-283, 'TM'; 496-498 < HAM>
A; Rotein type: Protein
A; Residues: 33-41, 's', 43-62; 260-283, 'TM'; 496-498 < HAM>
A; Note: a cyanogen bromide peptide binds to adrenoferredoxin
R; Nonaka, Y; Murakami, H.; Yabusaki, Y; Kuramitsu, S.; Kagamiyama, H.; Yamano, T.;
Biochem. Biophys. Res. Commun. 145, 1239-1247, 1987
Biochem. Biophys. Res. Commun. 145, 1239-1247, 1987
Biochem. Biophys. Res. Commun. 145, 1239-1247, 1987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Introns: 27/1; 59/3; 91/3; 132/3; 170/3; 204/3; 246/3; 275/1; 341/3; 399/1; 456/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Molecule type: protein
A; Residues: 'X', 34-41.'X', 43-48,'X', 50-51,304-306,'X', 308-309,'X', 311-326 <WAR>
C; Comment: Ferredoxin--NADP+ reductase is localized in the matrix of adrenal cortex
                                                                                                                                                                                                                                                                                                                                                                                                                                                               C; Function:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C; Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R:Warburton, R.J.; Seybert, D.W.
Biochim. Biophys. Acta 1246, 39-46, 1995
A;Title: Structural and functional characterization of bovine adrenodoxin reductase
A;Reference number: S52100; MUID:95110846
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 1-76,'R',78-80,'YWLALTTPRSRMLL',95-123,'RYYRLT',129-204,211-273,'R',275-3
A;Cross-references: GB:M17029; NID:g162628; PIDN:AAA30362.L; PID:g162629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ferredoxin--NADP+ reductase, adrenodoxin and two forms of cytochrome P-450.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Accession: S52100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Experimental source: adrenal cortex
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Title: Molecular cloning and sequence analysis of full-length cDNA for mRNA of adre A; Reference number: A29604; MUID:87270696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Hanukoglu, I.; Gutfinger, T.

Bur. J. Biochem. 180, 479-484, 1989

A;Title: cDNA sequence of adrenodoxin reductase. Identification of NADP-binding sites

A;Reference number: S03558; MUID:89170752

A;Accession: S03558
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A; Residues: 155-204,211-498 <HAN>
A; Cross-references: EMBL:X13736; NID:g65; PIDN:CAA32002.1; PID:g833776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: mRNA
A; Residues: 56-498 <SA2>
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J. Blochem. 102, 1333, 1386, 1987
A;Title: Cloning and sequence analysis of adrenodoxin reductase cDNA from bovine adre
A;Reference number: JT0079; MUID:88198050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Accession: JS0390
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: JS0390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    submitted to DDBJ, September 1989
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: mRNA
A; Residues: 1-204,211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: GB:D00211; NID:g217433; PIDN:BAA00150.1; PID:g217434
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               preliminary
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A;Molecule type: mRNA
A;Residues: 1159-1173 < RA2>
A;Cross-references: EMBL:X15654; NID:g58921; PIDN:CAA33680.1; PID:g1334827
A;Cross-references: EMBL:X15654; NID:g58921; PIDN:CAA33680.1; PID:g1334827
C;Superfamily: coronavirus E2 glycoprotein
C;Keywords: glycoprotein; transmembrane protein
F;1-15/Domain: signal sequence *status predicted <SIG>
F;16-1173/Product: E2 glycoprotein #status predicted <MAT>
F;1116-1138/Domain: transmembrane #status predicted <MAT>
F;1116-1138/Domain: transmembrane #status predicted <MAT>
F;23,62,98,147,171,176,220,243,326,333,440,464,518,538,542,568,581,587,663,671,930,1015,
        망
                                                       QΨ
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C; Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 16-Jun-2000
C; Accession: A4766; MUID: 90264837
A; Rocession: A34766
A; Rocession: A34766
A; Rocession: A34766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R;Raabe, T.; Siddell, S.
Nucleic Acids Res. 17, 6387, 1989
A;Title: Nucleotide sequence of the human coronavirus HCV 229E mRNA 4 and mRNA 5 unique
A;Reference number: A34038; MUID:89366667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Molecule type: mRNA
A;Residues: 1-1173 <RAA>
A;Residues: 1-1173 <RAA>
A;Cross-references: EMBL:X16816; NID:g58926; PIDN:CAA34723.1; PID:g58927
A;Experimental source: strain 229E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Accession: S05460
A;Status: translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        E2 glycoprotein precursor - human coronavirus (strain 229E)
N;Alternate names: peplomer glycoprotein; S glycoprotein; spike glycoprotein
C;Species: human coronavirus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Erker, J.C.; Desai, S.M.; Leary, T.P.; Chalmers, M.L.; Montes, C.C.; Mushahwar, I.K. J. Gen. Virol. 79, 41-45, 1998
A;Title: Genomic analysis of two GB virus A variants isolated from captive monkeys. A;Reference number: Z16486; MUID:98120818
A;Accession: T08839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyprotein - marmoset hepatitis GB virus A
C;Species: marmoset hepatitis GB virus A
C;Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 17-Nov-2000
C;Accession: T08839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C; Keywords: polyprotein
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A; Residues: 1-2970 <ERK>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: translated from GB/EMBL/DDBJ
                                                                                                            Matches
                                                                                                                                                           Query Match
                                                                                                                                        Best
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1113 KWPWWVW 1119
                                                                                                         Local Similarity hes 5; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           807 RWPWLPKLWLVAAWFWP 823
                                                    2 RWPWWPW 8
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                                                                                                         Conservative
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                                                                                                                                51.5%;
71.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        52.0%;
47.1%;
                                                                                              Score 51; DB
Pred. No. 41;
1; Mismatches
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Pred. No. 87;
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                                                                                                                                                DB 1; Length 1173;
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                                                                                                 Indels
                                                                                              0; Gaps
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                                                                                           0;
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Search completed: January 30, 2002, 11:50:30 Job time: 124 sec